

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/030986

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/17 C07K14/47

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, MEDLINE, Sequence Search, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>AL-ZOUBI ADEEB M ET AL: "Contrasting effects of IG20 and its splice isoforms, MADD and DENN-SV, on tumor necrosis factor alpha-induced apoptosis and activation of caspase-8 and -3"</p> <p>JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 50, 14 December 2001 (2001-12-14), pages 47202-47211, XP002317870</p> <p>ISSN: 0021-9258</p> <p>Discussion abstract</p> <p style="text-align: center;">----- -/--</p>	1-20

☒ Further documents are listed in the continuation of box C.☐ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

16 February 2005

Date of mailing of the international search report

07/03/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EFIMOVA ELENA V ET AL: "Differential effects of IG20 and its splice isoform, DENN-SV, on cell proliferation and apoptosis" FASEB JOURNAL, vol. 16, no. 5, 22 March 2002 (2002-03-22), page A1083, XP009044048 & ANNUAL MEETING OF PROFESSIONAL RESEARCH SCIENTISTS ON EXPERIMENTAL BIOLOGY; NEW ORLEANS, LOUISIANA, USA; APRIL 20-24, 2002 ISSN: 0892-6638 abstract	1-20
X	SCHIEVELLA ANDREA R ET AL: "MADD, a novel death domain protein that interacts with the type 1 tumor necrosis factor receptor and activates mitogen-activated protein kinase" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 272, no. 18, 1997, pages 12069-12075, XP002317872 ISSN: 0021-9258 abstract page 12069, right-hand column, paragraph 2	1-20
X	ZHANG Y ET AL: "A splicing variant of a death domain protein that is regulated by a mitogen-activated kinase is a substrate for c-Jun N-terminal kinase in the human central nervous system" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 95, no. 5, 3 March 1998 (1998-03-03), pages 2586-2591, XP002214181 ISSN: 0027-8424 abstract page 2586, right-hand column, paragraph 3	1-20
A	HILGER R A ET AL: "THE RAS-RAF-MEK-ERK PATHWAY IN THE TREATMENT OF CANCER" ONKOLOGIE, KARGER, FREIBURG, DE, vol. 25, no. 6, December 2002 (2002-12), pages 511-518, XP009008407 ISSN: 0378-584X abstract	1-20
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>EFIMOVA ELENA V ET AL: "IG20, in contrast to DENN-SV, (MADD splice variants) suppresses tumor cell survival, and enhances their susceptibility to apoptosis and cancer drugs." ONCOGENE, vol. 23, no. 5, 5 February 2004 (2004-02-05), pages 1076-1087, XP002317873 ISSN: 0950-9232 abstract</p> <p>-----</p>	1-20

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-18 could be interpreted to be directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7,14-20 (all claims partially)

IG20 and the use of IG20 or of antibodies, anti-sense or SiRNA molecules thereof to regulate cell death or cell replication.

1.1. claims: 1-20 (all claims partially)

DENN-SV and the use of DENN-SV or of antibodies, anti-sense or SiRNA molecules thereof to regulate cell death or cell replication.

1.2. claims: 1-20 (all claims partially)

Splice variant of IG20 different to DENN-SV and the use of said splice variant or of antibodies, anti-sense or SiRNA molecules thereof to regulate cell death or cell replication (if more than one further splice variant is claimed, each of said further splice variants is considered to be a further subinvention.
